

IN THE CLAIMS

Claims 1-29 (cancel)

Please add the following claims

30 (new). An isolated enzyme with uracil-DNA glycosylase activity, wherein said enzyme has an amino acid sequence as set forth in SEQ ID NO: 2 from amino acid 82 to 301, or a functional part thereof having uracil-DNA glycosylase activity, and wherein said enzyme is completely inactivated when heated above about 60°C and is not able to reactivate.

31 (new). The enzyme of claim 30 with a subcellular localization signal attached to the N-terminal, wherein the amino acid sequence of the subcellular localization signal is as set forth in SEQ ID NO:2 from amino acid 1 to 81 or a functional part thereof.

32 (new) The enzyme of claim 31, wherein the subcellular localization signal is a nuclear or a mitochondrial localization signal.

33 (new). The enzyme of claim 30, wherein said enzyme is derived from a vertebrate.

34 (new). The enzyme of claim 33, wherein said vertebrate is a fish.

35 (new). The enzyme of claim 34, wherein the fish is a member of the family Gadidae.

36 (new). The enzyme of claim 35, wherein the fish is a member of the genus Gadus.

37 (new). The enzyme of claim 36, wherein the fish is Atlantic cod
(*Gadus morhua*).

38 (new). The enzyme of claim 30 further comprising a detectable label.

39 (new) A method for carry-over prevention comprising the steps of adding the
uracil-DNA glycosylase according to anyone of claims 30, 31, 32, 33, 34, 35, 36, 37 or 38 to
a reaction mixture.

40 (new) The method of claim 39, wherein the reaction mixture is a PCR reaction
mixture.

41 (new). A composition for use in carry-over prevention comprising the uracil-DNA
glycosylase according to anyone of claims 30, 31, 32, 33, 34, 35, 36, 37 or 38.